

## **IN THE SPECIFICATION**

Please replace the paragraph at page 2, lns. 7-13 with the following amended paragraph:

Operations of the conventional prism-type front light will be described below. When the light source 2 is off (see Fig. 13A), external light 6 from the surroundings is incident on an upper surface 1c of the light guide plate 1 on which a prism is provided, and exits from a lower surface 1d. After reflected from pixel electrodes of a reflective ~~LCD~~ liquid crystal panel 5, the light 6 passes through the light guide plate 1 to reach eyeballs of a user.

Please replace the paragraph at page 5, lns. 11-21 with the following amended paragraph:

Secondly, the light entered into the light guide plate 1 cannot easily exit therefrom through the lower surface ~~[[1b]]~~ 1d, and therefore, is likely to be lost in the light guide plate 1. This in turn leads to reduced light utilization efficiency and lower luminance. More specifically, the light incident on the side surface 1a of the light guide plate 1 at a small incident angle experiences the smaller numbers of reflection and refraction at the upper and lower surfaces 1c and 1d, so that the light is likely to satisfy the total reflection condition. When the total reflection condition is satisfied, the light continues to be propagated in the light guide plate 1, while repeating reflections, to be finally attenuated therein.

Please replace the paragraph at page 16, lns. 3-13 with the following amended paragraph:

Figs. 3A to 3C are cross-sectional views of the prism-shaped lenses in accordance with the present invention, in which Fig. 3A shows the prism-shaped lenses 1061 with the obtuse angle  $\phi_{out}$  of the equally-side trapezoidal cross-section satisfying the relationship of  $\phi_{out} \approx 90^\circ$ , Fig. 3B shows the prism-shaped lenses 1062 with the obtuse angle  $\phi_{out}$  of the equally-side trapezoidal cross-section

satisfying the relationship of  $\phi_{\text{out}} \geq 90^\circ + (90^\circ - \theta_c)$ , and Fig. 3C shows the prism-shaped lenses 1063 in accordance with the present invention, particularly intended to explain the relationship between the obtuse angle  $\phi_{\text{out}}$  of the equally-side trapezoidal cross-section and the resulting image quality;

Please replace the paragraph at page 16, ln. 21 - page 17, ln. 3 with the following amended paragraph:

~~Fig. 6 illustrates~~ Figs. 6A-6D illustrate a configuration of the front light in accordance with Embodiment 2 of the present invention, and more specifically, Fig. 6A shows a cross-sectional view of the front light, Fig. 6B shows a perspective view of a collimator sheet, Fig. 6C shows a perspective view of each prism-shaped lens, and Fig. 6D shows a cross-sectional view of the prism-shaped lens in a plane perpendicular to the side surfaces;

Please replace the paragraph at page 19, lns. 2-12 with the following amended paragraph:

The light guide plate 101 is a plate made of rectangular-shaped transparent material in the form of a rectangular parallelepiped with each of four side surfaces thereof being a rectangle in which the shorter edges are significantly shorter as compared to the longer edges. The material for the light guide plate 101 has the transmittance for visible lights (the whole light rays transmittance) of 80% or larger, more preferably of 85% or larger, and the refractive index of about  $2^{1/2}$  or larger. With a refractive index in such a range, light incident on the side surface 101a at an incident angle of  $90^\circ$  can be refracted to be guided into the light guide plate 101. In the present embodiment, materials having the refractive index in the range of 1.4 to 1.7 will be selected.

Please replace the paragraph at page 37, lns. 22 - page 38, ln. 11 with the following amended paragraph:

As shown in Fig. 8A, rotational-body lenses 306 are provided at equal intervals on a base film 305 made of PET so that an upper surface 306a of each of the rotational-body lenses 306 is in close contact with a lower surface of a light guide plate (not shown in Fig. 8A). The rotational-body lenses 306 and the light guide plate are made of the same material, of ~~course~~ course. As shown in Fig. 8B, each of the rotational-body lenses 306 has a shape obtained by rotating an axially-symmetric figure, as shown in Fig. 6D or Fig. 7A, around the symmetrical axis 206k. By providing each of the lenses 306 with the cross-section as shown in Fig. 8B, the light entering the lenses 306 through the upper surface 306a thereof is, similar to Embodiment 2, allowed to exit through a lower surface 306b after being reflected at a side surface 306c.

Please replace the paragraph at page 45, ln. 10 - page 46, ln. 7 with the following amended paragraphs:

Any constitution of Embodiments 1 to 5 can be used as the front light. In this Embodiment a front light 200 of Embodiment 2 is used. In Fig. 12, the same reference numerals as that of Fig. 6 indicate the same material. Fig. 12A is a cross section in which a sensor 700 is arranged under the front light. The optical system of the adhesive type sensor 700 is not a reduction type system, and it is an equivalent system. In other words, it is a type in which the distance between the manuscript and the sensor is small which is referred to as an ~~adhesion~~ adhesive type sensor. The adhesive type sensor of this Embodiment may be a single dimension arrangement (line sensor) or a two dimension arrangement (area sensor).

The construction of the adhesive type sensor and the operation at reading are shown in Fig.

12B. In [[an]] the adhesive type sensor 700, a light receiving section 702 which performs photoelectric conversion by receiving light, an illumination window 703 for passing through the light, etc., are disposed on the glass substrate 701, under the front light 200. There are cases in which there is no illumination window in case of a line sensor. An equivalent optical system 704 such as a selfoc lens and an optical fiber array are arranged under the light receiving section 702. Note that there are cases that there is no optical system 704. The sensors are called perfect adhesive sensor in such cases.